Senator Dill, Representative O'Neil, and distinguished members of the Agriculture, Conservation and Forestry Committee, I am Alex Ingraham, President of Pingree Associates. I am also a forester with a B.S. Degree in forest management from the University of Maine. I am testifying in opposition to LD 125.

We are testifying against this bill for several reasons, including but not limited to the negative impacts it will have on the forest-based economy, future forest growth, forest health, and the lack of science and peer reviewed study behind this legislation.

Last January a third-party audit was submitted to the Maine Board of Pesticides Control that documented audit activity of the 2019 application season in Maine. The Audit found that:

> *At bottom line, no evidence was gathered during the course of the verification audit to contradict the following overall conclusion: The State of Maine regulatory framework, within which aerial application of herbicides in forest operations takes place, is functioning as designed. Further: within the context of forest landowners' silvicultural decisions and the decision to aerially apply herbicides to control (for a targeted period of time) but not eliminate vegetation that competes with forest stand establishment and early stand development, we observed a consistent and genuine effort on the part of forest managers and pesticide applicators/suppliers to minimize reliance on and use of herbicides, principally through thorough planning and integrated pest management.*[1]

Aerial application is the most effective application tool available and allows for the lowest possible application rates with the highest efficacy per acre. Treatment areas are chosen judiciously to provide the greatest possible success rate that will allow for a better future forest condition. This is particularly true with species like American beech that are infected with an invasive scale insect and subsequent fungal infection that creates a pathogenic condition referred to as beech bark disease. The increased presence of American Beech in the northeast over the last 30+ years is attributable to this pathogen (Bose et al. 2017). These treatments and the associated pathogen have been part of long-term studies at Austin Pond, and other prominent research areas throughout the Northern Forest. Aerially applied glyphosate at low application intensities is an important tool that allows foresters to reduce the pathogenically produced beech coppice competition and release overshaded sugar maple and other long-lived species (Nelson and Wagner 2011). This singular application allows for the sugar maple and other desired species to get a jump start and outcompete beech as it would under normal non-pathogenic conditions.

The ACF committee toured an area in Northern Maine in 2019 that included a control block that had been left untreated where diseased beech were overshading sugar maple and other long lived tree species as a result of a pathogenically created coppice condition. In the treatment section, where a low rate of glyphosate was applied using aerial application, beech was still present, but it was no longer the dominant species present in the young early successional stand. The sugar maple that was given the chance to succeed with the aerial application of glyphosate has the free growing space to one day mirror the stand of trees in the adjacent overstory of healthy large diameter sugar maple. Unfortunately, that healthy stand of sugar maple in the adjacent stand overstory has the same issue in its understory, a diseased layer of beech that is overtopping the sugar maple seedlings on the forest floor. Without the necessary tools to treat conditions such as these foresters, landowners, loggers, mills, and the

[1] https://www.maine.gov/dacf/php/pesticides/documents2/bd_mtgs/feb20/6e-combined.pdf

associated rural economies won't be able to rely on that future fiber. Forests are complex in both time and space -- managing that complexity, particularly in the northeast, utilizes decades of peer reviewed research to drive decision making to achieve outcomes 40 to 80 years into the future.

As an industry we support and promote science-based policy and regulatory processes necessary in the regulation of herbicide and pesticide products at both the state and federal level. The Maine Department of Agriculture Conservation and Forestry (DACF) and Board of Pesticides Control regulates these tools effectively as shown through the audit of the industry practices in 2019. DACF ensures safe and proper use in the state through the registration of herbicides, certification of applicators, and through enforcement and research activities. DACF's and the BPC's regulation of herbicides also ensures consistency with federal regulation and scientific standards, particularly environmental and human health and safety standards.

I urge the committee to vote ought not to pass and allow our industry to continue to use this important tool to manage the forest with the continued rigor and oversight of the DACF and BPC.

Respectfully,

Alex Ingraham